October 1, 1951.

Archives of Biochemistry,
125 E. 23 Street,
New York 10, N.Y.

Gentlemen:

I am returning, herewith, an ms. submitted for review, together with my comments. The subject is very appropriate for your journal, but the authors did not, in my opinion, submit a satisfactory account of their work.

The ms. mentioned on the enclosed postcard has not been seen here. However, I would prefer not to review that paper, as it is outside my field of competence. I recommend that (if found!) it be sent to Doudoroff at Berkeley, or Bonner at Yale.

Please note that an adventitious initial has somehow crept into your record of my name.

Yours sincerely,

Joshua Lederberg,
Associate Professor of Genetics

C O P Y

Lucke & Lindegren: Single Hit Inactivation of single chromosome sets in Saccharomyces by ultra violet irradiation.

This note might be viewed as an exercise in target theory, or as support for the hypothesis, undoubtedly correct, that recessive lethal mutations play but a small role in UV inactivation. As a theoretical exercise, the conclusions have long been familiar to most competent investigators, and have been formally expressed by Atwood and Norman (cited in the note), and by Luria and Dulbecco (Genetics 34:93, 1949). It must be admitted that some investigators have, nevertheless, inferred the absurdity mentioned on page 3, but to the reviewer's knowledge, the fallacy has been corrected prior to its publication. The authors do not refer to the paper by Latarjet and Ephrussi (C.R.A.S., Paris, 229:306, 1949) which closely parallels their work, but which comes closest to falling into the trap they are pointing out. As a theoretical exercise only, the note is not a significant contribution.

On the other hand, the experiments by Delong and Lindegren, referred to qua abstract in the Proceedings of the S.A.B., in conjunction with the target analysis as expounded in this paper, would probably constitute a most desirable publication. The reviewer does not feel that the abstract is sufficient documentation for work so interesting as this. The fact that other workers on radiation effects on yeast have been equally skimpy in factual publication in support of their conclusions is a mitigating, but not a justifying circumstance.

The title identifies the chromosome set as the unit target. This is somewhat confusing and perhaps inconsistent with their suggestion that a particular chromosomal element, the nucleolus (-organizer?) is the principal target. Alternative targets might be suggested: e.g., one particularly sensitive (large??) chromosome or gene in each haploid set.